

January 7, 2004

REMARKS

In the Office Action, the Examiner indicated that claims 1 -5, 7-9 and 11-19 are pending in the application, that claims 1-5, 7, and 12-17 are allowed, and that claims 8, 9, 11, 18 and 19 are rejected.

Claim Rejections, 35 U.S.C. §102

On page 2 of the Office Action, the Examiner rejected claims 8, 9, 11 and 19 under 35 U.S.C. §102(a) as being anticipated by applicant's prior art and on page 3 of the Office Action rejected claim 18 under 35 U.S.C. §102(a) as being anticipated by U.S. Patent No. 5,640,127 to Metz.

The Present Invention

The present invention is directed to a transmit and receive protection circuit for use in a communication system. In the transmit and receive protection circuit, the DC currents through an input side and an output side of a four-diode gate are controlled independently. By independently controlling the DC currents through each side of the four-diode gate, more control over the DC currents through the individual diodes of a four-diode gate is achieved. This allows a four-diode gate having low AC resistance to be created in which low power AC signals on an input side of the four-diode gate are accurately reproduced on an output side of the four-diode gate.

In a first embodiment each diode of the four diode gate has an independent resistor that is used for current control; in a second embodiment, two of the four diodes have

independent resistors used for current control, and the other two diodes share a single resistor for current control.

U.S. Patent No. 5,640,127 to Metz

U.S. Patent No. 5,640,127 to Metz teaches a high bandwidth amplifier circuit with input protection. The input protection is achieved by providing a signal limiting diode circuit in the path to the positive input of the amplifier and a cross-over signal feed path for coupling a portion of the input signal from the input signal source side of the signal limiting diode circuit to the negative input of the amplifier. Among other assertions regarding Metz, the Examiner asserts that the connection point between resistor R4 and diode D1 of Figure 8 teaches the connection of first and second diodes to form an input terminal, and the connection point between resistor R6 and diode D2 of Fig. 8 together teaches the connection of third and fourth diodes connected together to form an output terminal.

Claim Rejections under 35 U.S.C. §102

The MPEP and case law provide the following definition of anticipation for the purposes of 35 U.S.C. §102:

“A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” MPEP §2131 citing *Verdegaal Bros. v. Union Oil Company of California*, 814 F.2d 628, 631, 2 U.S.P.Q. 2d 1051, 1053 (Fed. Cir. 1987)

Rejection of Claims 8, 9, 11 and 19

Claim 8, from which claims 9 and 11 depend, and claim 19 have each been amended to recite independent controllability of first and second strings of series connected diodes to carry predetermined independent DC currents (claim 8) or substantially the same DC current (claim 19). None of applicants' admitted prior art teaches or suggests such independent control. With this independent control of the DC currents in the diode strings, more control over the DC currents through the individual diodes is achieved, allowing low power AC signals on an input side of the diode gate to be accurately reproduced on an output side of the diode gate. Thus, claims 8 and 19, and all claims depending therefrom, distinguish over the prior art and are in condition for allowance.

Rejection of Claim 18

Metz does not anticipate the claimed invention. The Examiner has not established a *prima facie* case of anticipation. Claim 18 includes explicit recitation of the formation of an input terminal formed by the connection of first and second diodes connected in series, and an output terminal formed by the connection of third and fourth diodes connected in series. The input terminal is designated as element 103 in Figures 2A and 2B, and the output terminal is designated as element 107 in Figures 2A and 2B. The terminals referred to by the Examiner in Metz are terminals formed by the connection of a resistor and a diode, not the connection point between two series-connected diodes as is claimed. Without such a teaching, Metz cannot anticipate claim 18. Accordingly, the Examiner is respectfully requested to reconsider and withdraw the rejection of claim 18 under 35 U.S.C. §102.

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Conclusion

The present invention is not taught or suggested by the prior art. Claims 1-5, 7, and 12-17 have been allowed. Claims 8, 9, 11, 18 and 19 patentably define over the prior art for the reasons set forth herein. Accordingly, the Examiner is respectfully requested to reconsider and withdraw the rejection of the claims. An early Notice of Allowance is earnestly solicited.

The Commissioner is hereby authorized to charge any additional fees or credit any overpayment associated with this communication to Deposit Account No. 19-5425.

Respectfully submitted,

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Date

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Enclosures